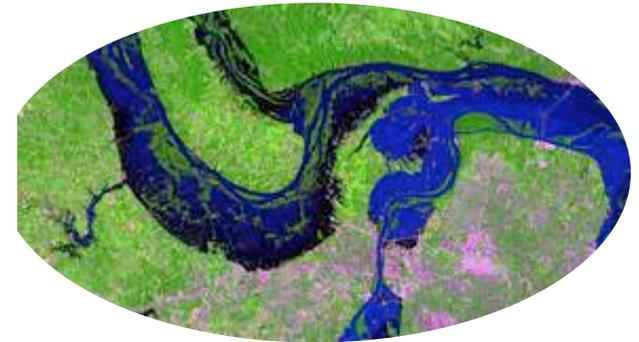
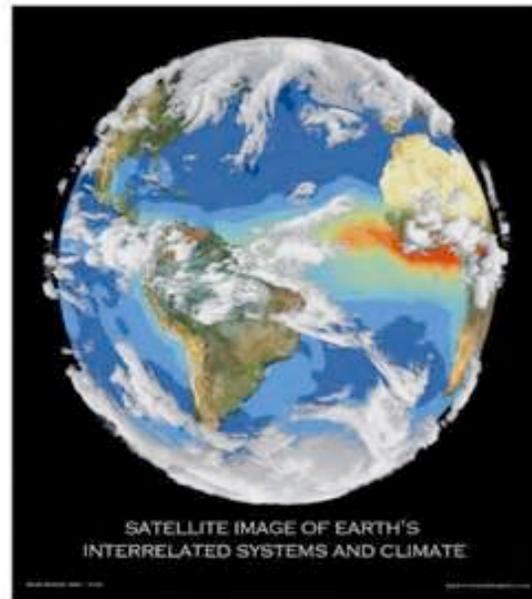


# NASA Applied Remote Sensing Training\* ARSET



## Bienvenidos a la Capacitación NASA ARSET de Variabilidad Climática, Hidrología e Inundaciones



\*“Capacitación de percepción remota aplicada” en inglés

# Ciencias Terrestres de la NASA

## Áreas de Aplicaciones del Programa de Ciencias Aplicadas



**Desastres**



**Pronósticos  
Ecológicos**



**Salud y Calidad  
del Aire**



**Recursos Hídricos**



**Agricultura**



**Clima**



**Energía**



**Océanos**



**Meteorología**

# Applied Remote Sensing Training (ARSET) ("Capacitación de percepción remota aplicada")



<http://arset.gsfc.nasa.gov>

- **META:** Incrementar la utilización de datos de observación y de modelos de la NASA para apoyar decisiones a través de actividades de capacitación para profesionales ambientales.
- **Capacitaciones en línea:** En vivo y grabadas, de 4 a 6 semanas de duración. Incluyen demostraciones de acceso a datos
- **Capacitaciones presenciales:** En un laboratorio de computación, de 2 a 4 días. Enfoque principal en acceso a datos
- **Capacitación para los capacitadores:** Cursos y manuales de capacitación para quienes se interesen por dirigir sus propias capacitaciones de percepción remota.
- **Áreas de aplicaciones:** recursos hídricos, desastres, salud/calidad del aire, incendios, y gestión de la tierra



## Logros (2008 – 2015)

- 48 capacitaciones completadas
- + de 2500 participantes globalmente
- + de 800 Organizaciones



# ARSET

## Cursos en línea y presenciales:

- **Quiénes:** personas que formulan políticas, gestores ambientales, modeladores y otros profesionales in los sectores público y privado.
- **Dónde:** EE.UU e internacionalmente
- **Cuándo:** durante todo el año. Chequee las páginas en línea.
- **NO requieren experiencia previa con la percepción remota.**
- Presentaciones y ejercicios prácticos guiados en computadora sobre cómo accede a, interpretar y utilizar imágenes satelitales de la NASA para informar la toma de decisiones.



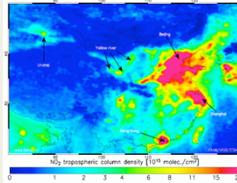
Capacitación NASA para la Junta de Recursos Aéreos de California, Sacramento



# ARSET: Áreas de enfoque de las capacitaciones

## Salud(Calidad del Aire)

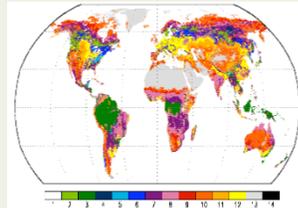
- 2008 – presente
- 33 capacitaciones
- + de 1000 usuarios
- Análisis del polvo, incendios y contaminación aérea urbana.
- Transporte de contaminantes sobre largas distancias
- Inter-comparaciones de modelos satelitales y regionales de la calidad del aire.



• Apoyo para el pronóstico de la calidad

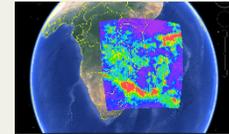
del aire y el análisis de eventos  
Gestión de la Tierra  
excepcionales

- Lanzado en 2014
- 2 capacitaciones
- + de 300 usuarios
- Aplicaciones del GIS
- Índices de vegetación
- Productos de fuego (comenzando en 2015)



## Recursos Hídricos y Monitoreo de Inundaciones

- abril 2011 – presente
- 11 capacitaciones
- + de 1200 usuarios
- Monitoreo de Inundaciones/ Sequías
- Tiempo y precipitación severos
- Gestión de cuencas hídricas
- Impacto del clima sobre recursos
- Monitoreo de nieve/hielo
- Evapotranspiración (ET), agua subterránea, humedad del suelo y escorrentía.



## Capacitación para capacitadores (Comenzando en 2015)

- Cursos y consejos sobre cómo diseñar y desarrollar *SU PROPIA* capacitación de percepción remota en línea o a base de computadora
- Cómo desarrollar presentaciones y ejercicios efectivos.

# ARSET: Método de Aprendizaje Gradual



## Capacitación Básica Cursillos en línea Presenciales

No supone ningún conocimiento  
previo de la PR



## Capacitación Avanzada Presencial

En general se requiere haber atendido  
un curso en línea

Enfocado en aplicaciones/problemas/  
datos específicos: por ejemplo el  
monitoreo de las inundaciones en un  
país o región específica

## Capacitación en línea

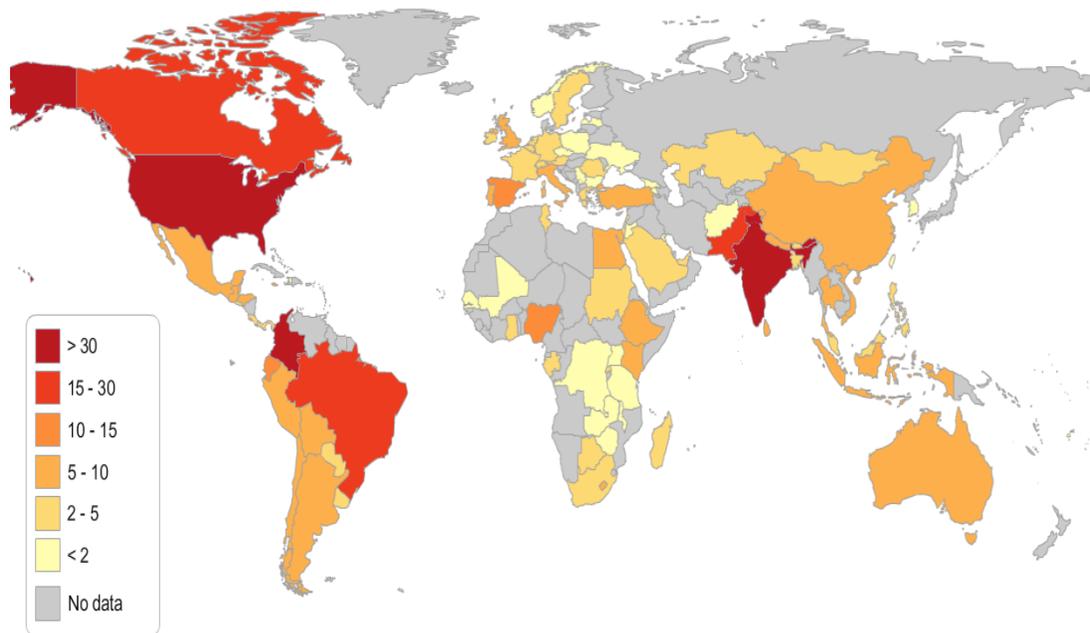


## Capacitación presencial



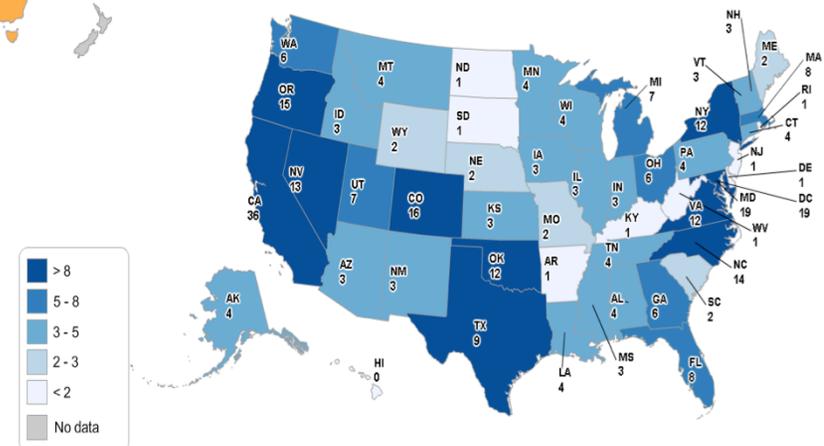


# ARSET: 2009 – 2014



**48 Capacitaciones  
+ de 2500 Usuarios  
+ de 800 Organizaciones**

Número de organizaciones participantes por país (arriba) y por estado de EE UU (derecha): Calidad del Aire, Agua, Inundaciones y Gestion de la Tierra



# ARSET- Página en línea

<http://arset.gsfc.nasa.gov/>



The screenshot shows the ARSET website interface. At the top, there is a header with the NASA logo and the text "ARSET Applied Remote Sensing Training". Below the header is a navigation bar with tabs for "DISASTERS", "ECO FORECASTING", "HEALTH & AIR QUALITY", and "WATER RESOURCES". A search bar is located on the right side of the header. The main content area is titled "Applied Remote Sensing Training" and contains introductory text about the program's goals and activities. A red box highlights a navigation menu on the left side of the page, which lists "ARSET", "Webinars", "Workshops", "Apply for Training", "Personnel", "Links", and "Upcoming Webinar". A red arrow points from this menu to a larger, light blue box on the left side of the image, which contains the same list of items in a larger font. The footer of the website includes contact information and a list of related programs.

Earth Science Division Applied Sciences ASP Water Resources

**ARSET**  
Applied Remote Sensing Training

DISASTERS ECO FORECASTING HEALTH & AIR QUALITY WATER RESOURCES

**ARSET**

- Webinars
- Workshops
- Apply for Training
- Personnel
- Links
- Upcoming Webinar

**Applied Remote Sensing Training**

The goal of the NASA Applied Remote SEnsing Training (ARSET) is to increase the utility of NASA earth science and model data for policy makers, regulatory agencies, and other applied science professionals in the areas of Health and Air Quality, Water Resources, Eco Forecasting, and Disaster Management.

The two primary activities of this project are webinars and In-person courses.

**Webinars (Free)**

Webinars are offered throughout the year in all four application areas, generally 4-5 weeks in duration, 1 hour per week. They are intended for those new to remote sensing. For more information and to register please go to the webinars section of the website.

**In-Person Courses**

ARSET in-person courses are a combination of lectures and computer hands-on activities that teach professionals how to access, interpret, and apply NASA data at regional and global scales with an emphasis on case studies. ARSET works with organizations who will host the training for groups within their geographical region, tailoring the curriculum to the needs of the projected participants. NASA does not charge an attendance fee, but attendees must make their own arrangements to travel to the course meeting location.

**Skills Taught:**

- Search, access, and download of NASA data products and imagery
- Appropriate use and interpretation of satellite imagery.
- Visualization and analysis of NASA imagery using NASA, EPA, and NOAA webtools and other resources such as GIS, Google Earth, Panoply, RSIG, and HDFLook

ARSET is sponsored by the Applied Sciences Program within NASA's Earth Sciences Division. We would like to thank Nancy Searby, Applied Sciences' Capacity Building Program Manager for her support of this project.

Last updated: August 18, 2014  
NASA Official: Kenneth Pickering  
Webmaster: Susannah Pearce  
Curator: Ana Prada

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**ARSET**

- Webinars
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# Acceso a Cursos ARSET

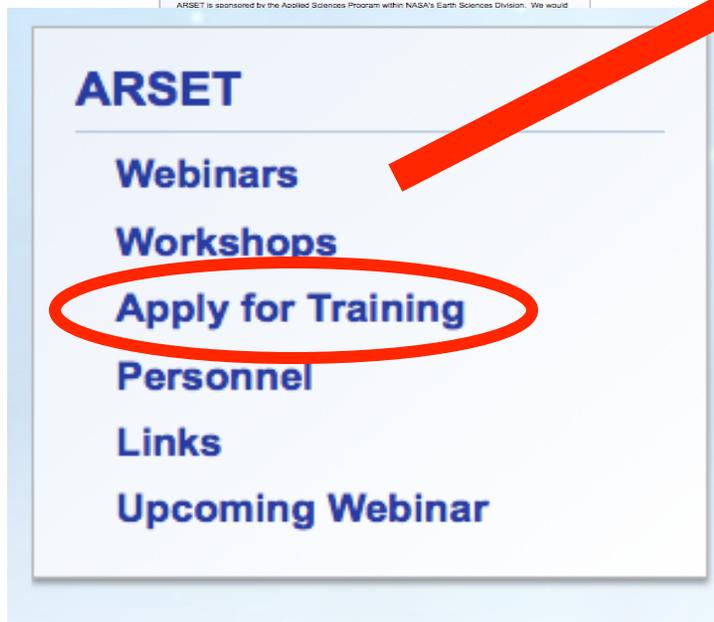
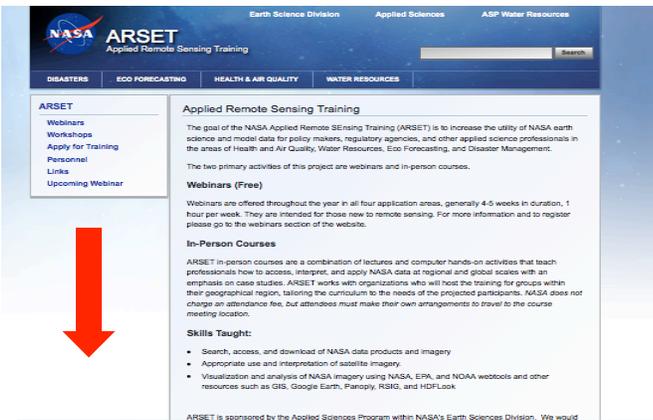
<http://arset.gsfc.nasa.gov>



The screenshot displays the ARSET website interface. At the top, there is a navigation bar with the NASA logo and the text "ARSET Applied Remote Sensing Training". Below this, a secondary navigation bar lists four categories: "DISASTERS", "ECO FORECASTING", "HEALTH & AIR QUALITY", and "WATER RESOURCES". A red circle highlights the "DISASTERS" link in this bar. On the left side, a vertical menu lists "Webinars", "Workshops", "Apply for Training", "Personnel", "Links", and "Upcoming Webinar", with "Webinars" circled in red. A red arrow points from this menu to the main content area. The main content area is titled "Applied Remote Sensing Training" and contains introductory text about the program's goals and activities. Below this, there are sections for "Webinars (Free)", "In-Person Courses", and "Skills Taught". A red arrow points from the "Webinars" section to a detailed course listing. The course listing includes the title "NASA Earth Observations and Tools for Air Quality Applications in South East Asia", the dates "Wednesday, April 1, 2015 to Wednesday, April 29, 2015", the application area "Airquality", and keywords "Aerosols, Air Pollution, Dust, Fires and Smoke, PM2.5, Satellite Imagery, Smoke, Trace Gases". It also lists instruments/missions: "CALIPSO, MISR, MODIS, VIIRS". A "Read more" button is provided for this course. Below this, another course is listed: "Introduction to Global Precipitation Measurement (GPM) Data and Applications", with dates "Tuesday, March 17, 2015 to Tuesday, March 31, 2015", application area "Disasters, Water Resources", keywords "Flooding, Satellite Imagery, Tools", and instruments/missions "GPM, TRMM". A second "Read more" button is provided for this course.

# Solicite un Cursillo

<http://arset.gsfc.nasa.gov>



## Apply for Training

The NASA Applied Remote Sensing Training Program provides webinars and in-person courses. The goal of these training activities is to build the capability and skills to utilize NASA earth science observations and model data for environmental management and decision-support. Courses are primarily intended for applied science professionals and decision makers from local, state, federal agencies, NGOS, and the private sector. ARSET also offers a Train the Trainers program, which is recommended for establishing or growing your organizations' capacity in applied remote sensing.

*ARSET trainings are NOT designed for research but for operational and application driven organizations.*

To apply for a training email Ana Prados at [Ana.I.Prados@nasa.gov](mailto:Ana.I.Prados@nasa.gov)

The program offers four types of courses. For in-person courses, applicants must provide a computer laboratory or similar facility.

1. Overview webinar course: held over a period of 4-5 weeks, 1 hour per week
2. Basic hands-on: In person applied remote sensing course for those new to remote sensing. Generally 2-3 days in length held. It is highly recommended that attendees first take the webinar course.
3. Advanced hands-on: In person applied remote sensing course that builds the skills to use NASA data for a specific environmental management problem. Intended for those who have already taken the basic course or have previous experience using NASA data and resources. Generally 1-2 days in length.
4. Train the Trainers: In person applied remote sensing course intended for existing remote sensing/geospatial trainers within the organization/institution/agency.

# ListServe del ARSET



**Para recibir información sobre futuros  
cursillos y lo último sobre los programas  
inscríbese al listserv**

**<https://lists.nasa.gov/mailman/listinfo/arset>**